

BAM-1020 Audit Sheet

Model: **BAM-1020**

Serial Number: **TZ1292**

Audit Date: **5/18/17**

Audited By: **M. Potter**

Flow Audits

Flow Reference Standard Used:	Model: DeHaCal	Serial No: 146294	Calibration Date: 1/16/16
Temperature Standard Used:	Model:	Serial No:	Calibration Date:
Barometric Pressure Standard Used:	Model:	Serial No:	Calibration Date:

Leak Check Value: as found: **0.9 lpm**

as left: **0.2 lpm**

Ambient Temperature:

as found: **29.8 C** **29.8 C**

as left: **29.8 C** **29.8 C** N/A ☐

Barometric Pressure:

as found: **744 mmHg** **744 mmHg**

as left: **744 mmHg** **744 mmHg** N/A ☐

Flow Rate (Actual Volumetric):

as found: **16.7 lpm** **16.7 lpm**

as left: **16.7 lpm** **16.7 lpm** N/A ☐

Flow Rate (EPA Standard):

as found: **slpm** **slpm**

as left: **slpm** **slpm** N/A ☐

Mechanical Audits

Pump muffler unclogged:	as found <input checked="" type="checkbox"/>	as left <input type="checkbox"/>
Sample nozzle clean:	as found <input checked="" type="checkbox"/>	as left <input checked="" type="checkbox"/>
Tape support vane clean:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>
Capstan shaft clean:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>
Rubber pinch rollers clean:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>
Chassis ground wire installed:	as found <input checked="" type="checkbox"/>	as left <input type="checkbox"/>

PM10 particle trap clean:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
PM10 drip jar empty:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
PM10 bug screen clear:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
PM2.5 particle trap clean:	as found <input type="checkbox"/>	as left <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Inlet tube water-tight seal OK:	as found <input checked="" type="checkbox"/>	as left <input type="checkbox"/>	
Inlet tube perpendicular to BAM:	as found <input checked="" type="checkbox"/>	as left <input type="checkbox"/>	

Analog Voltage Output Audit

N/A ☐

DAC Test Screen	BAM Voltage Output	Logger Voltage Input
0.000 Volts	Volts	Volts
0.500 Volts	Volts	Volts
1.000 Volts	Volts	Volts

Membrane Audit

LAST m (mg):	
ABS (mg):	
Difference (mg):	
% Difference:	

Flow Control Range

Flow Setpoint	BAM Flow
15.0 LPM	15.0
16.7 LPM	16.7
18.4 LPM	18.4

Setup and Calibration Values

Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock Time/Date			FLOW TYPE			AP		
RS232 baud			Cv			FRi		
STATION #			Qo			FRh		
RANGE			ABS			Password		
BAM SAMPLE			μ sw			Cycle Mode		
MET SAMPLE			K Factor			RH Control		
OFFSET			BKGD			RH Setpoint		
CONC UNITS			STD TEMP			Datalog RH		
COUNT TIME			HEATER			Delta-T Control		
FLOW RATE			e1			Delta-T Setpoint		
CONC TYPE			Errors			Datalog Delta-T		

Last 6 Errors in BAM-1020 Error Log

Error	Date	Time	Error	Date	Time
1 Tape Tension	5/18		4 Tape Tension	5/18	
2 ↓	↓		5 ↓	↓	
3 ↓	↓		6 ↓	↓	

Audit Notes: System in Tape Tension error on arrival. Tape Run out. Tape Replaced & tested. Annual inspection and calibration complete. System left "On". Weather Data Downloaded. Clocks Synchronized.

BAM-1020 Audit Sheet

Model: **BAM-1020**

Serial Number: **121292**

Audit Date: **6/1/17**

Audited By: **M. Parker**

Flow Audits

Flow Reference Standard Used:	Model: Delta 191	Serial No: 146294	Calibration Date: 1/16/16
Temperature Standard Used:	Model: 1	Serial No: 1	Calibration Date: 1
Barometric Pressure Standard Used:	Model: 1	Serial No: 1	Calibration Date: 1

Leak Check Value: as found: **1.1** lpm

as left: **0.5** lpm

Ambient Temperature:

as found: **26.0** C

as left: **26.0** C

N/A ☐

Barometric Pressure:

as found: **749** mmHg

as left: **749** mmHg

N/A ☐

Flow Rate (Actual Volumetric):

as found: **16.7** lpm

as left: **16.7** lpm

N/A ☐

Flow Rate (EPA Standard):

as found: **16.64** slpm

as left: **16.64** slpm

N/A ☒

Mechanical Audits

Pump muffler unclogged:	as found <input checked="" type="checkbox"/>	as left <input type="checkbox"/>
Sample nozzle clean:	as found <input checked="" type="checkbox"/>	as left <input checked="" type="checkbox"/>
Tape support vane clean:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>
Capstan shaft clean:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>
Rubber pinch rollers clean:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>
Chassis ground wire installed:	as found <input checked="" type="checkbox"/>	as left <input type="checkbox"/>

PM10 particle trap clean:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
PM10 drip jar empty:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
PM10 bug screen clear:	as found <input type="checkbox"/>	as left <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
PM2.5 particle trap clean:	as found <input type="checkbox"/>	as left <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Inlet tube water-tight seal OK:	as found <input checked="" type="checkbox"/>	as left <input type="checkbox"/>	
Inlet tube perpendicular to BAM:	as found <input checked="" type="checkbox"/>	as left <input type="checkbox"/>	

Analog Voltage Output Audit

N/A ☐

DAC Test Screen	BAM Voltage Output	Logger Voltage Input
0.000 Volts	Volts	Volts
0.500 Volts	Volts	Volts
1.000 Volts	Volts	Volts

Membrane Audit

LAST m (mg):	
ABS (mg):	
Difference (mg):	
% Difference:	

Flow Control Range

Flow Setpoint	BAM Flow
15.0 LPM	
16.7 LPM	
18.4 LPM	

Setup and Calibration Values

Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock Time/Date			FLOW TYPE			AP		
RS232 baud			Cv			FRI		
STATION #			Qo			FRh		
RANGE			ABS			Password		
BAM SAMPLE			μ sw			Cycle Mode		
MET SAMPLE			K Factor			RH Control		
OFFSET			BKGD			RH Setpoint		
CONC UNITS			STD TEMP			Datalog RH		
COUNT TIME			HEATER			Delta-T Control		
FLOW RATE			e1			Delta-T Setpoint		
CONC TYPE			Errors			Datalog Delta-T		

Last 6 Errors in BAM-1020 Error Log

Error	Date	Time	Error	Date	Time
1 Maintenance	6/1/17	11:15	4 Tape Tension	5/18/17	10:23
2 Maintenance	5/18/17	11:17	5	↓	9:23
3 Tape Tension	5/18/17	11:00	6	↓	8:23

Audit Notes: **Performed Audit and Cleaning. Download data. Tape Tension Test x2. Sync Clock. Weather Station Download. Systems running on arrival and departure.**